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Attorney Docket Number

## **TRANSMITTAL FORM**

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Total Number of Pages in This Submission

09/433,609 **Application Number** 11/02/1999 Filing Date tienne Barnard et al. First Named Inventor **Group Art Unit** A. Armstrong **Examiner Name** 111385.132

	•	ENCLOSURES (check all that apply)
Fee Transmittal Form Fee Attached  Amendment / Reply  After Final Affidavits/dect  Extension of Time Re  Express Abandonme  Information Disclosur  Certified Copy of Pric Document(s)  Response to Missing Incomplete Application  Response to Missing Incomplete Application  Response to Missing Incomplete Application	claration(s) equest ent Request are Statement ority g Parts/ on Missing Parts	Assignment Papers (for an Application)  Drawing(s)  Licensing-related Papers  Licensing-related Papers  Petition  Petition  Petition to Convert to a Provisional Application  Change of Correspondence Address  Terminal Disclaimer  Request for Refund  CD, Number of CD(s)  After Allowance Communication to Group (Appeal Communication to Board of Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)  Proprietary Information  Status Letter  Other Enclosure(s) (please identify below):  Post Card  Remarks
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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE COPY OF PAPERS ORIGINALLY FILED

Applicants: Etienne Barnard et al.

Serial No.:

09/433,609

Filed:

November 2, 1999

For:

Method and Apparatus for Discriminative Training of Acoustic Models of a

Speech Recognition System

Examiner:

Armstrong, A.

Art Unit:

2641

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APR 1 8 2002

Technology Center 2600

Reply

This reply is in response to the Office Action of October 4, 2001.

## In the Claims

Please amend the claims to read as follows. A marked up version of the claims is provided as Attachment A. Unamended claims are also shown for convenience but in smaller font size.

1. (Amended) A method of unsupervised training of acoustic models of a segmentationbased automatic speech recognition system, comprising the steps of: receiving correct alignment data that represents a correct segment alignment of an utterance that was received by the speech recognition system;

receiving wrong alignment data that represents an alignment of the utterance that is known to be incorrect based on information received from the speech recognition system and describing the utterance;

identifying a first phoneme in the correct alignment data that corresponds to a second phoneme in the wrong alignment data and in which the first phoneme received a worse recognizer score than the second phoneme;

modifying a first acoustic model of the first phoneme by moving at least one mean value thereof closer to the feature values used to score the first phoneme.